August 22, 2016

Ex Parte

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: *Amendment of Parts 15, 73 and 74 of the Commission's Rules to Provide for the Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks*, **IB Docket No. 13-213**
Petition for Rulemaking to Permit MVDDS) Use of the 12.2-12.7 GHz Band for) Two-Way Mobile Broadband Service, **File No. RM-11768**

Dear Ms. Dortch:

On August 18, 2016 Michael Calabrese, representing New America's Open Technology Institute ("OTI"), met with Edward Smith, wireless counsel to Chairman Tom Wheeler, concerning the above-listed proceedings.

I reiterated OTI's position that because Globalstar is seeking new and very valuable terrestrial spectrum rights that could be auctioned, the Commission should ensure a return to the public by imposing a *meaningful* version of the public interest condition proposed last year in filings by OTI – and separately by Google – that would authorize both TLPS and expanded public access to Wi-Fi channel 14 for consumers more broadly.[1] Specifically, I stated that in exchange for the valuable terrestrial mobile waiver and the waiver of the strict OOBE limits at the border between the 2.4 GHz unlicensed band and Globalstar's spectrum, the Commission should initially authorize public use of Wi-Fi Channel 14 in locations where Globalstar is not deployed and has determined that Channel 14 transmissions create virtually no risk of harmful interference to its mobile satellite device customers (e.g., indoors and generally within urban areas). Channel 14 should not lie fallow in schools, libraries and other venues if public access is feasible without interfering with Globalstar's mobile satellite subscribers and initial TLPS deployments.

[1] *See* Ex Parte Letter from Michael Calabrese, New America's Open Technology Institute, and Harold Feld, Public Knowledge, *Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks*, IB Docket No. 13-213 (Feb. 13, 2015). *See also* Ex Parte Letter from Austin Schlick, Google, *Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks*, IB Docket No. 13-213 (Oct. 10, 2015).

I made several other specific points concerning the ongoing negotiations with Globalstar about how Wi-Fi Channel 14 – which would be combine unlicensed 2.4 GHz unlicensed band with terrestrial use of the band Globalstar is licensd to use only for satellite services:

First, although only Globalstar should be authorized to deploy during the initial one-year trial period for TLPS, once the Commission determines that its Channel 14 operations will not unduly disrupt the existing unlicensed ecosystem, public use of Channel 14 should be allowed in locations where Globalstar has not deployed. There should not be a 5-year waiting period for opportunistic public access, since even during a period that TLPS is given priority access, a geolocation database can easily grant or deny public access. More critically, after a defined period of time that is no longer than five years after the effective date of the order, the public should have access to Channel 14 on an equal basis and Globalstar should no longer receive priority access or interference protection for its proprietary Wi-Fi deployments (TLPS).

Second, the Commission should ensure that the public will have the option to query a FCC-certified SAS to gain access to Channel 14, even if that phases in later and is contingent on future Commission action based on how effectively SASs manage the 3.5 GHz Citizens Broadband Radio Service. Any order authorizing TLPS should also require Globalstar to make its NOS data available to certified SAS operators for the purpose of enforcing the minimum protection zones necessary to safeguard TLPS and Globalstar's existing mobile satellite services. Making Globalstar the monopoly gatekeeper to public access to Channel 14 is a clear conflict of interest, since Globalstar will directly profit from denying public access and from undermining the public interest condition on their windfall. It would also be inefficient, since chip and equipment makers (e.g., Ruckus and Qualcomm) are already combining 3.5 GHz spectrum and Wi-Fi in access points. Operators should be able to periodically check a single geolocation database – not be forced to query different databases for different bands, at least not without a good reason. Requiring a SAS as an option is also insurance against a Globalstar exit from the TLPS business – or a bankruptcy in general; the public and investors in Channel 14 equipment should know there will be one or more objective, FCC-certified databases for the long haul.

Third, OTI strongly opposes any condition that would allow Globalstar to block public access in geographic areas larger than is required to avoid harmful interference. The notion that Globalstar should be able to exclude geographic areas as large as census tracts – or possibly even multiple census tracts – because it deploys a Wi-Fi access point that covers a radius of a few hundred feet (and even less for most indoor deployments) is nothing but a thinly veiled effort to make public access a meaningless condition. Since TLPS will most likely be deployed initially at venues and outdoor areas in the largest metro markets, the cumulative impact of blocking off entire census tracts is likely to undermine the economics of investment in chips and routers that would enable general public use of Channel 14 as a fourth non-overlapping Wi-Fi channel in the future.

Allowing Globalstar to exclude the public from an unnecessarily large area based on census tracts would also represent an enormous waste of spectrum capacity and is counter to FCC precedent. A census tract is in many cases hundreds and even thousands of times larger than the protection zone a TLPS deployment would need to be safe from harmful interference. A standardized protection contour is also less arbitrary, since it puts the site-based deployment at the center of the protection area. This is precisely why the Commission is requiring a robust version of General Authorized Access to unused licensed

spectrum in the 3.5 GHz band, with protection contours no larger than an objective, software-generated polygon. In the case of TLPS – which is technically the same as Wi-Fi – it would be much less arbitrary and wasteful of spectrum capacity to give any grandfathered TLPS deployments a standard protection radius that is proportional to the effective coverage area of a Wi-Fi deployment – e.g., a protection zone with a radius of 300 to 500 feet at most. This is also the approach adopted by the Commission to protect licensed wireless microphones in the TV White Space spectrum. There is no rational reason to waste spectrum by giving Globalstar the ability to warehouse census tracts.

Fourth, the Commission should make it clear in the order that Globalstar cannot charge either the public or a SAS (as a wholesale user of NOS location data) any fee that is greater than necessary to recover the incremental costs of providing NOS data, plus a modest and reasonable profit margin. It is Globalstar that is seeking a windfall at public expense in this proceeding; and it is Globalstar that is seeking to protect priority use of its initial TLPS deployments, as well as its mobile satellite business (for which – unlike many other licensees – it did not compete in an auction or pay the public for its use).

Finally, I noted that no additional public notice or comment is necessary to adopt a public access condition. Permitting a "use or share" regime is a logical outgrowth of the Commission's notice on whether and under what conditions to allow Globalstar to lease or otherwise provide third parties access under its license to Channel 14 by authorizing rule changes that combine unlicensed spectrum with Globalstar's licensed spectrum.

Concerning the MVDDS proceeding, the OTI representative inquired about the status of the petition requesting that the 12.2 to 12.7 GHz band be allocated for two-way mobile broadband and as a band that could enhance the emerging 5G ecosystem. I summarized the comments that OTI filed with Public Knowledge ("PK") supporting consideration of the band – on a parallel track with other proposed millimeter wave bands in the Spectrum Frontier proceeding – for terrestrial mobile and flexible use.[2] At the same time, similarly to Globalstar's petition, because the FCC's grant of new terrestrial mobile rights to satellite licensees would confer a valuable benefit, OTI and PK suggested that any such grant should be coupled with use-or-share obligations designed to ensure maximum utilization of spectrum both prior to licensee buildout, and in areas where licensees lack economic incentives to deploy.[3] Additionally, the Commission should also impose whatever performance obligations and pro-competitive spectrum screen or cap polices arise from the Spectrum Frontiers proceeding.

Respectfully submitted,

/s/ *Michael Calabrese*
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cc: Edward Smith
Erin McGrath

[2] Comments of Public Knowledge and Open Technology Institute at New America, *Petition for Rulemaking to Permit MVDDS) Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service*, File No. RM-11768 (June 8, 2016).
[3] *Id.* At 4.